

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. **(Currently Amended)** An apparatus for multiplexing and/or demultiplexing optical signals having a plurality of wavelengths, the apparatus comprising:

- a multiplex body having first and second parallel surfaces between which light is reflected back and forth and coupled in or out in a wavelength-dependent manner, and

- a plurality of subassemblies, each subassembly comprising:

- an optoelectronic transducer supported by [[a]] on a first side of a substrate; and

- an associated optical system that includes a lens ~~attached~~ formed in a second side of [[to]] the substrate, wherein the lens is unique to the subassembly.

2. **(Previously Presented)** The apparatus as claimed in claim 1, wherein the optical system of the subassemblies is formed such that each subassembly provides an optical path comprising a parallel beam pencil.

3. **(Previously Presented)** The apparatus as claimed in claim 1, wherein each subassembly is mechanically connected to the multiplex body.

4. **(Previously Presented)** The apparatus as claimed in claim 1, further comprising means for providing an angular orientation of the optical path of each subassembly with respect to the second surface of the multiplex body.

5. **(Previously Presented)** The apparatus as claimed in claim 4, wherein the means for providing the angular orientation comprises spacers, each spacer being arranged between an associated subassembly and the second surface of the multiplex body.

6. **(Previously Presented)** The apparatus as claimed in claim 5, wherein each subassembly is assigned an eccentrically arranged spacer, which provides a tilted arrangement of the subassembly with respect to the second surface of the multiplex body such that optical signals of the optical path are coupled in or out obliquely with respect to the second surface of the multiplex body.

7. **(Previously Presented)** The apparatus as claimed in claim 5, wherein each spacer is premounted on its associated subassembly.

8. **(Previously Presented)** The apparatus as claimed in claim 5, wherein each spacer is formed as an integrated part of its associated subassembly.

9. **(Previously Presented)** The apparatus as claimed in claim 5, wherein a plurality of spacers are connected to one another with a defined spacing and form a placement part that is placed onto the second surface of the multiplex body.

10. **(Previously Presented)** The apparatus as claimed in claim 1, further comprising wavelength-selective filters, each wavelength-selective filter being assigned to an optical path and being provided on at least one of the first and second surfaces of the multiplex body, wherein each wavelength-selective filter is assigned to an associated subassembly.

11. **(Previously Presented)** The apparatus as claimed in claim 10, wherein the wavelength-selective filters are separate carrier parts arranged on the second surface of the multiplex body and between multiplex body and the associated subassembly.

12. **(Previously Presented)** The apparatus as claimed in claim 10, wherein the wavelength-selective filters and assigned subassemblies are arranged on the second surface of the multiplex body.

13. **(Previously Presented)** The apparatus as claimed in claim 12, wherein the first surface of the multiplex body is provided with a broadband reflection layer, which reflects all optical signal wavelengths.

14. **(Canceled)**

15. **(Previously Presented)** The apparatus as claimed in claim 1, wherein each subassembly includes a monitor diode optically coupled to the optoelectronic transducer of that subassembly.

16. **(Previously Presented)** The apparatus as claimed in claim 1, wherein the optoelectronic transducer and the associated optical system of each subassembly are mounted on a leadframe.

17. **(Previously Presented)** The apparatus as claimed in claim 16, wherein the optoelectronic transducer, the associated optical system and the leadframe of each subassembly are at least partially encapsulated with a potting compound.

18. **(Previously Presented)** The apparatus as claimed in claim 1, wherein the optoelectronic transducer of each subassembly comprises a transmission component, and each subassembly differs from the other subassemblies with respect to the wavelength of the light emitted by the transmission component of the respective subassembly.

19. **(Previously Presented)** The apparatus as claimed in claim 1, wherein the optoelectronic transducer of each subassembly comprises a reception component.

20. **(Previously Presented)** The apparatus as claimed in claim 1, further comprising a separate coupling assembly provided on the first surface of the multiplex body.

21. **(Previously Presented)** The apparatus as claimed in claim 20, wherein the separate coupling assembly has a lens that focuses the optical signals within the multiplex body onto a core of an optical waveguide that is coupled to the coupling assembly.

22. **(Previously Presented)** The apparatus as claimed in claim 20, wherein the separate coupling assembly has means for guiding and fixing an optical waveguide to the coupling assembly.

23. **(Currently Amended)** An optical multiplexing/demultiplexing apparatus comprising:

a monolithic transparent body having first and second parallel surfaces, each of the first and second surfaces being at least partially reflective;

a plurality of subassemblies mounted adjacent to the second surface of the monolithic transparent body, each subassembly including an optoelectronic transducer supported by a first side of a substrate that includes, wherein a lens unique to the subassembly is formed in a second side of the substrate opposite the first side, the lens defining an associated optical axis aligned at an oblique angle relative to the second surface; and

a plurality of wavelength-selective filters, each wavelength-selective filter being mounted between the second surface and a corresponding subassembly of the plurality of subassemblies.

24. **(Previously Presented)** An optical multiplexing/demultiplexing apparatus comprising:

a monolithic transparent body having first and second parallel surfaces, each of the first and second surfaces being at least partially reflective;

a coupling assembly mounted to the first surface of the monolithic transparent body, the coupling assembly defining a first optical axis aligned at an oblique angle relative to the first surface;

a plurality of subassemblies mounted adjacent to the second surface of the monolithic transparent body, each subassembly including an optoelectronic transducer supported by a substrate, and each subassembly further including an associated optical system, each associated optical system defining an associated second optical axis that is aligned at the oblique angle relative to the second surface, the optical system comprising a lens unique to the subassembly formed on or in the substrate; and

a plurality of wavelength-selective filters, each wavelength-selective filter being mounted between the second surface and a corresponding subassembly of the plurality of subassemblies, the plurality of wavelength-selective filters being positioned along the second surface such that a light beam pencil directed along the first optical axis is reflected between the first and second surfaces to each of the plurality of wavelength-selective filters.

25. **(Previously Presented)** The apparatus as claimed in claim 1, wherein the optoelectronic transducer of at least one subassembly comprises one of: a vertically emitting laser diode; and, an edge emitting laser diode.

26. **(Currently Amended)** The apparatus as claimed in claim 1, wherein the optoelectronic transducer emits directly into the substrate. ~~is mounted on the rear side of the lens.~~